



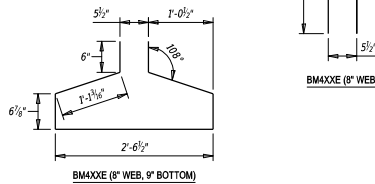
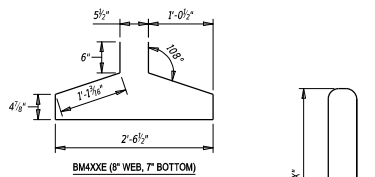
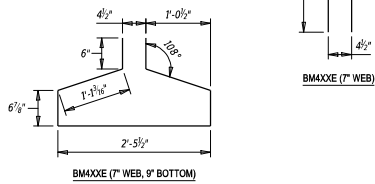
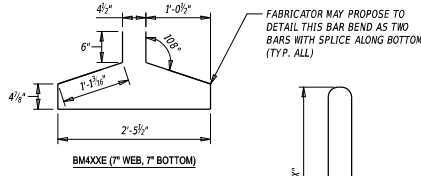
NOTE: ALL REINFORCEMENT FOR THE PCF BEAM IS INCLUDED IN ITEM (insert appropriate beam item number). THE REINFORCING BAR LIST AND BENDING DIAGRAMS MUST BE SHOWN ON THE PCF GIRDER SHEETS AND SEPARATE FROM THE BRIDGE REINFORCEMENT BAR SHEET. THE BELOW DIMENSIONS ARE RECOMMENDED. THE DESIGNER IS STILL RESPONSIBLE FOR ENSURING THAT THE DIMENSIONS SHOWN ON PLANS ARE ACCURATE AND PROJECT-SPECIFIC.

### REINFORCING BAR LIST

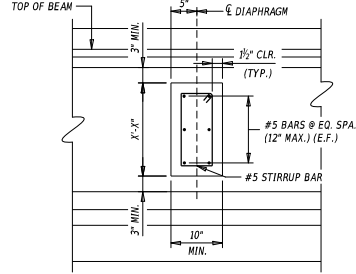
STRAIGHT BARS				BENT BARS			
MARK	SIZE	NUMBER	LENGTH	MARK	SIZE	NUMBER	LENGTH
BMXXE	----	----	----	BMXXE	4	----	----
BMXXE	----	----	----	BMXXE	4	----	----
BMXXE	----	----	----	BMXXE	4	----	----
BMXXE	----	----	----	BMXXE	4	----	----

### BENDING DIAGRAMS

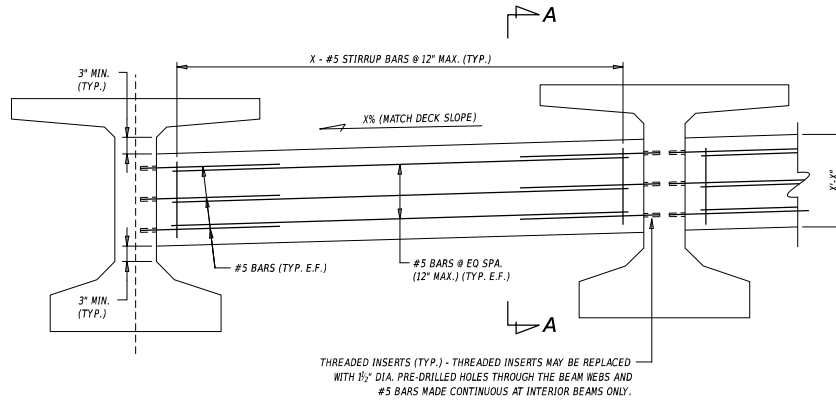
NOTE: ALL DIMENSIONS ARE FROM OUT TO OUT.



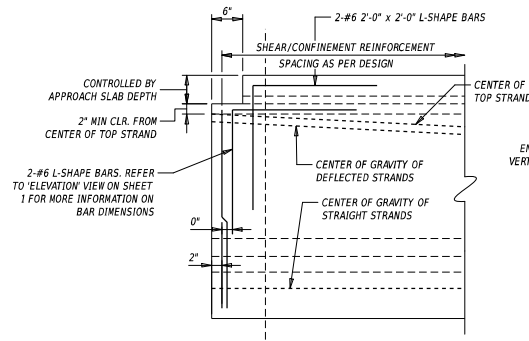
NOTE: REINFORCING BAR LIST COUNT IS PER BEAM



### SECTION A-A

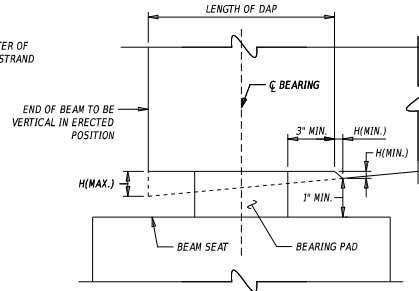


### INTERMEDIATE DIAPHRAGM ELEVATION

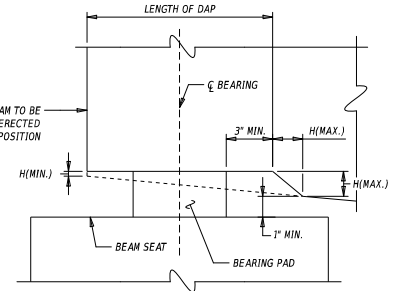


### BEAM ELEVATION AT ABUTMENT

NOTE: TYPICAL FOR JOINTS LOCATED OFF THE BRIDGE. REFER TO 'ELEVATION' VIEW ON SHEET 1 FOR MORE INFORMATION ON REINFORCEMENT.



### LOW END OF BEAM



### HIGH END OF BEAM

### BEAM DAP DETAILS

NOTE: THE DAP LENGTH MUST PARALLEL BEARING PAD EDGE. REFER TO DESIGNER NOTE 5 FOR MORE INFORMATION.

### DESIGNER NOTES

- REFER TO SECTION 106.9 FOR MORE INFORMATION ON THE DESIGN AND DETAILING OF PRESTRESSED CONCRETE PCF GIRDERS. ALSO REFER TO SECTION 103.4.1.2 FOR MORE INFORMATION ON WHEN USE OF PCF GIRDERS IS APPROPRIATE.
- FOR MORE INFORMATION ON ALLOWABLE PRESTRESSING STRAND TYPE AND SIZES, REFER TO SECTION 205.4.4.
- FOR MORE INFORMATION ON DESIGN AND DETAILING OF PRESTRESSING STRANDS EXTENDING INTO THE PIER DIAPHRAGM, REFER TO AS.12.3.3.9.
- EXAMPLES IN THIS DETAIL UTILIZE #4 BARS. THIS IS THE MINIMUM REBAR SIZE. HIGHER BAR SIZES MAY BE REQUIRED AS PER DESIGN.
- BEAM DAP CALCULATIONS INCLUDE BOTH BEAM CAMBER AND ROADWAY GRADE. BEAM DAP SHOULD BE USED ONLY WHEN H(MAX.) IS 1/4" TO 1 1/2". THE MINIMUM DISTANCE FROM BOTTOM OF BEAM TO CENTER OF BOTTOM-MOST STRAND ROW SHALL BE AS FOLLOW:  
-DISTANCE = 2 1/2" WHEN H(MAX.) IS 1/4" TO LESS THAN OR EQUAL TO 3/4"  
-DISTANCE = 3" WHEN H(MAX.) IS GREATER THAN 3/4" TO LESS THAN OR EQUAL TO 1 1/4"  
-DISTANCE = 3 1/2" WHEN H(MAX.) IS GREATER THAN 1 1/4" TO LESS THAN OR EQUAL TO 1 1/2"  
-WHEN H(MAX.) IS GREATER THAN 1 1/2", USE BEVELED SOLE PLATE AND 2" MINIMUM DISTANCE.  
-IF THE BEAM END IS SKEWED, USE OF BEVELED SOLE PLATE IS PREFERRED OVER USE OF BEAM DAP.
- INTERMEDIATE DIAPHRAGMS FOR PRESTRESSED CONCRETE PCF GIRDERS SHALL BE CAST-IN-PLACE CONCRETE, PRECAST CONCRETE, OR GALVANIZED STEEL. THE INTERMEDIATE DIAPHRAGM DETAILS DEPICTED ON SHEET 2 SHOWS THE CAST-IN-PLACE CONCRETE OPTION. FURTHER GUIDANCE MAY BE FOUND IN SECTION 106.9.3.
- DETAILS FOR STAY-IN-PLACE FORMS, PIER DIAPHRAGM, AND END DIAPHRAGM CAN BE FOUND IN DETAIL NO. 325.01 - CONCRETE DECK DETAILS.
- ENSURE WORKING DRAWINGS MEET ALL REQUIREMENTS AS OUTLINED IN SECTION 612.03(B)&(E) OF THE DELDOT STANDARD SPECIFICATIONS.



DELAWARE DEPARTMENT OF TRANSPORTATION  
BRIDGE DESIGN MANUAL

PRESTRESSED CONCRETE PCF BEAM BRIDGE DETAILS

NOT TO SCALE

ISSUE DATE		DETAIL No. 330.04 SHEET No. 2 of 2
10/01/2015		
10/01/2016		
01/31/2019		